

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

# 10  
1 of 3

**In re Application of:  
RABINDRANATH DUTTA**

Serial No.: 09/599,893

Filed: 06/23/2000

## For: AUTOMATICALLY SCALING IONS TO FIT A DISPLAY AREA WITHIN A DPS

**ATTORNEY DOCKET NO.:  
AUS000065US1**

Examiner: **STEVEN PAUL SAX**

Art Unit: 2174

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**APPEAL BRIEF UNDER 37 C.F.R. 1.192**

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Sir:

This Brief is submitted in triplicate in support of the Appeal in the above-identified application. A Notice of Appeal was filed in this case on February 12, 2004 and received in the patent office on February 17, 2004.

**CERTIFICATE OF MAILING 37 CFR 1.8(A)**

I hereby certify that this Appeal Brief is being deposited with the United States Postal Service via First Class Mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner of Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Shenise Ramdees

Shenise Ramdeen

04-19-04

Date

### **REAL PARTY IN INTEREST**

The real party in interest in the present Appeal is International Business Machines Corporation of Armonk, New York, the Assignee of the present application as evidenced by the Assignment set forth at reel 010936, frame 0678.

### **RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellants, the Appellants' legal representative, or assignee, which directly affect or would be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **STATUS OF CLAIMS**

Claims 1-31 stand finally rejected as noted in the Examiner's action dated November 18, 2003.

### **STATUS OF AMENDMENTS**

No amendment has been submitted subsequent to the final rejection.

### **SUMMARY OF THE INVENTION**

As set forth in the present specification at page 4, line 19 et seq., the number of icons to be displayed on a computer screen is first determined. The boundary area for displaying those icons on the computer screen is then calculated and thereafter the sizes of the icons are then scaled to a size that allows all icons to be displayed in the boundary area while utilizing all available display space. The minimum and maximum sizes of the icons can be limited based on user preferences. If the icons cannot be scaled to fit within the boundary area using the user's selected minimum size, then only a portion of the icon is displayed. In this manner, all icons are scaled and displayed at a size which utilizes the full boundary area of a display screen.

As illustrated within Figure 10 of the present application and as described in the present specification at page 22, line 17 et seq., the process for implementing the present invention first determines the number of icons to be displayed in a particular boundary area and thereafter determines the size of the boundary area. Next, as depicted at block

1008 of Figure 10, a scale factor (SF) for scale in the icons is determined, sets of the icons can be displayed entirely within the boundary area.

Next, as illustrated at block 1010, a test is performed to determine whether the scale factor (SF) is less than the predetermined maximum scale factor and if so, the process continues to block 1014. If the scale factor is not less than the predetermined maximum scale factor, the process passes to block 1012.

Referring again to block 1014, a test is performed to determine whether the scale factor (SF) is less than the predetermined minimum scale factor. If this test is true, the process continues as described at block 1018 and if this test is false, the process continues as described at block 1016.

Thereafter, as depicted at block 1018, a test is performed to determine whether an alternative icon type should be utilized to display the icons. If this test is true, then the process continues as described at block 1022. If this test is false, then the process continues as described at block 1020.

Next, as illustrated at block 1024, text is removed from the icon image. As depicted at block 1026, graphics are removed from the icon image. As shown at block 1028, the scale factor (SF) for scaling the icons is determined such that the icons can be displayed in the boundary area. This procedure is analogous to the procedure shown at block 1008.

Still referring to FIG. 10, as depicted at block 1030, a test is performed analogous to the one illustrated at block 1010 to determine whether the scale factor (SF) is less than the predetermined maximum scale factor. If this test is true, then the process continues as described at block 1032. If this test is false, then the process continues through connector A to block 1012.

Next, as depicted at block 1032, a test is performed analogous to the one illustrated at block 1014 to determine whether the scale factor (SF) is less than the predetermined minimum scale factor. If this test is true, then the process continues through connector C to block 1020. If this test is false, then the process continues through connector B to block 1016.

Icon scale (IS) is set to a maximum value, as depicted at block 1012. The maximum value represents the scale factor used to show the icons at their maximum size as selected by the user. As shown at block 1016, icon scale is set to scale factor (SF). As illustrated at block 1020, icon scale (IS) is set to a minimum value. The minimum value represents the scale factor used to show the icons at their maximum size as selected by the user. As depicted at block 1034, the sizes of the icons are scaled by a factor of icon scale (IS). Thus, if icon scale (IS) is less than 1, the icon image size is reduced. If icon scale (IS) is greater than 1, the icon image size is enlarged. As illustrated at block 1036, icons are displayed at their newly scaled size within the boundary area of the display screen. As depicted at block 1038, the process is terminated.

Thus, as stated at page 25, lines 30-32, the present invention provides a method and system to automatically scale icons to be displayed on a display screen.

### ISSUE

Is the Examiner's rejection to claims 1-31 under 35 U.S.C. § 102 (e) as being anticipated by *Sheldon et al.*, U.S. Patent 6,702,486 well founded?

### GROUPING OF THE CLAIMS

For purposes of this Appeal, claims 1-31 stand or fall together as a single group.

### ARGUMENT

The Examiner has rejected claims 1-31 under 35 U.S.C. § 102 (e) as being anticipated by *Sheldon et al.*, U.S. Patent 6,702,486. That rejection is not well founded and it should be reversed.

The claims of the present application are directed to a "method and system for displaying icons within a data processing system having a display screen" by first: "determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system," second, "determining a designated area of said display screen for displaying said plurality of icons" and thereafter "automatically scaling each of said plurality of icons in response to said quantity of said plurality of icons and said

designated areas such that said plurality of icons can be displayed in said designated areas of said display screen.” (See claim 1).

In taking the position that *Sheldon et al.*, anticipate the claims of the present application, the Examiner has taken the position that *Sheldon et al.* indeed show a method for displaying icons within a data processing system but thereafter urges that *Sheldon et al.* teach the determination of the quantity of a plurality of icons to be displayed on a display screen, citing column 2, lines 30-42 and 49-66 and columns 6, lines 43-55.

Applicant has carefully examined the cited portions of *Sheldon et al.* and urges the Board to consider that such cited portions do not, in any way, suggest the determination of a quantity of icons to be displayed on a display screen. Rather, the cited portions of *Sheldon et al.* describe the method by which deskbars or deskband sites are displayed within a computer system. The term “icon” is a specific term of art in the computer arts and refers to a specific iconic representation of an application, object or other computer manipulatable element and does not, in the opinion of the Applicant, refer to deskbands or deskbars as taught by *Sheldon et al.*.

Further, the Examiner has urged that *Sheldon et al.* teach the automatic scaling of those icons in response to the quantity of icons in said designated areas so that the icons may be displayed within the designated area, citing column 18, lines 29-36 and Figure 2. Applicant urges the Board to consider that there are no icons depicted within Figure 2 of *Sheldon et al.* As expressly described within *Sheldon et al.* at column 7, lines 29 et seq., Figure 2 illustrates a desobar site 100, a desobar 10, a bandsite 120, and deskbands 130. Each deskband may comprise a portion of the display utilized to depict a toolbar within the deskband, and the Board’s attention is invited to Figures 8A-8E for an illustration thereof. Specifically, Figure 8E is described as including a desobar 310 which includes multiple deskbands, namely, “the quick launch tool bar 630, the control panel toolbar 500, the links toolbar 610, the desktop toolbar 620, and the address toolbar 600.” It should therefore be apparent to anyone having ordinary skill in this art that the term deskband and toolbar are utilized interchangeably within *Sheldon et al.* and that neither of these elements constitutes an “icon” is that term is utilized in the art.

Further support for Applicant's position with respect to this definition can be found in the description of Figures 6 and 7 within *Sheldon et al.*, wherein icons are separately and distinctly described. Beginning at column 15, lines 61 et seq., *Sheldon et al.* specifically describe the manner in which "icons" are resized. Notably, icons 505 may be displayed utilizing a large option 516a or a small option 516b. These options are selectable by the user and, in the opinion of the Applicant, this technique fails to show or suggest the automatic scaling of icons in response to a determination of the quantity of icons and the designated area, as expressly recited in the claims of the present application.

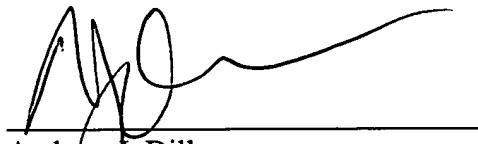
The Examiner also relies upon Figure 12 of *Sheldon et al.* believing that this figure does indeed show resizing of icons in response to a new deskband arrangement. Applicant urges the Board to consider that *Sheldon et al.* expressly state at column 18, line 34 et seq. that in response to resizing of a deskbar "icons 720 are automatically rearranged by the band site such as the icon 720 now appear in one row, as opposed to two rows as shown in Figure 11." Applicant urges that those having ordinary skill in the art, upon reference to the foregoing, in combination with the express teaching that icons are available in one of two sizes which may be specifically selected by the user, would not believe such teaching to anticipate, show or suggest a system in which the size of icons is automatically altered in response to the number of icons to be displayed and the area of display screen wherein an image of those icons is to be displayed, as expressly set forth within the claims of the present application. Consequently, Applicant urges that *Sheldon et al.* cannot be said to anticipate, show or suggest the invention set forth within the claims in the present application.

In summary, *Sheldon et al.* expressly teach that icons may be displayed in either a large option or a small option, as expressly selected by the user, and that icons may be physically rearranged to be displayed within a specified deskband. It should be noted however, that *Sheldon et al.* fail to show or suggest in any way the automatic variation in the size of the icons based upon the number of icons to be displayed and the area within which those icons must be displayed as expressly set forth within the claims of the

present application and reversal of the Examiner's rejection is therefore respectfully requested.

Please charge the fee of \$330.00 for submission of a Brief in Support of Appeal to IBM Corporation Deposit Account No. 09-0447. No additional filing fee is believed to be necessary; however, in the event that any additional fee is required, please charge it to IBM Deposit Account Number 09-0447.

Respectfully submitted,



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## APPENDIX

1. A method of displaying icons within a data processing system having a display screen, comprising the steps of:

first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system;

second determining a designated area of said display screen for displaying said plurality of icons; and

automatically scaling each of said plurality of icons in response to said quantity of said plurality of icons and said designated area such that said plurality of icons can be displayed in said designated area of said display screen.

2. The method of Claim 1, wherein said step of first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system comprises first determining a quantity of plurality icons defined by vector graphics to be displayed on a display screen of a data processing.

3. The method of Claim 1, wherein said step of first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system comprises first determining a quantity of a plurality of icons defined by bitmapped graphics to be displayed on a display screen of a data processing system.

4. The method of Claim 1, further comprising the step of displaying said plurality of icons on said display screen.

5. The method of Claim 1, further comprising the step of displaying said plurality of icons on said display screen, wherein said plurality of icons comprise a graphic image and a text image.

6. The method of Claim 1, further comprising the step of displaying said plurality icons on said display screen, wherein said plurality of icons only comprise a text image.
7. The method of Claim 4, wherein said step of displaying said plurality of icons on said display screen, comprises displaying said plurality of icons on a display screen, wherein said display screen has a fixed pixel width and a fixed pixel height.
8. A icon scaling system for use with a data processing system having a display, said icon scaling system comprising:
  - a calculation routine that determines a quantity of a plurality of icons to be displayed on a display screen of a data processing system;
  - a boundary routine that determines a designated area of said display screen for displaying said plurality of icons; and
  - a scaling routine that automatically scales said plurality of icons in response to quantity of a plurality of icons and said designated area such that said plurality of icons can be displayed in said designated area of said display screen.
9. The system of Claim 8, wherein said plurality of icons are defined by vector graphics.
10. The system of Claim 8, wherein said plurality of icons are defined by bitmapped graphics.
11. The system of Claim 8, further comprising a display routine that displays said plurality of icons on said display screen.
12. The system of Claim 8, wherein said plurality of icons comprise a graphic image and a text image.

13. The system of Claim 8, wherein said plurality of icons comprise only a text image.
14. The system of Claim 8, wherein said display screen has a fixed pixel width and a fixed pixel height.
15. An article of manufacture for use in a data processing system for scaling icons on a display screen, the article of manufacture comprising computer readable storage media including program logic embedded therein that causes control circuitry to perform the steps of:
  - first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system;
  - second determining a designated area of said display screen for displaying said plurality of icons; and
  - automatically scaling said plurality of icons in response to said quantity of said plurality of icons and said designated area such that said quantity of said plurality of icons can be displayed in said designated area of said display screen.
16. The article of manufacture of Claim 15, wherein said step of first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system comprises first determining a quantity of a plurality of icons defined by vector graphics to be displayed on a display screen of a data processing.
17. The article of manufacture of Claim 15, wherein said step of first determining a quantity of a plurality of icons to be displayed on a display screen of a data processing system comprises first determining a quantity of a plurality of icons defined by bitmapped graphics to be displayed on a display screen of a data processing system.
18. The article of manufacture of Claim 15, further comprising the step of displaying said plurality of icons on said display screen.

19. The article of manufacture of Claim 15, further comprising the step of displaying said plurality of icons on said display screen, wherein said plurality of icons comprise a graphic image and text image.
20. The article of manufacture of Claim 15, further comprising the step of displaying said plurality of icons on said display screen, wherein said plurality of icons only comprise a text image.
21. The article of manufacture of Claim 18, wherein said step of displaying said plurality of icons on said display screen, comprises displaying said plurality of icons on a display screen, wherein said display screen has a fixed pixel width and a fixed pixel height.
22. A method, for displaying icons within a data processing system having a display screen, comprising the steps of:
  - determining a size of a designated area of a display screen for displaying a plurality of icons;
  - displaying said plurality of icons within said determined size of said designated area by at least one of a) automatically scaling said icons; b) displaying a portion of each one of said plurality of icons; and c) creating a plurality of selectable displayed screen pages wherein each screen page has a portion of said plurality of icons displayed within said determined size of said designated area.

23. A method, for displaying icons within a data processing system having a display screen, comprising the steps of:

determining a size of a designated area of a display screen for displaying a plurality of icons;

utilizing a predetermined minimum size and a predetermined maximum size for an individual icon;

displaying said plurality of icons within said determined size of said designated area, based upon said predetermined minimum size and said predetermined maximum size, by at least one of a) automatically scaling said icons; b) displaying a portion of each one of said plurality of icons; and c) creating a plurality of selectable displayed screen pages wherein each screen page has a portion of the plurality of icons displayed within said determined size of said designated area.

24. The method of claim 23 wherein said predetermined minimum size and said predetermined maximum size are predetermined based on user input.

25. A data processing system having a display screen, comprising:

means for determining a size of a designated area of a display screen for displaying a plurality of icons;

means for displaying said plurality of icons within said determined size of said designated area by at least one of a) automatically scaling said icons; b) displaying a portion of each one of said plurality of icons; and c) creating a plurality of selectable displayed screen pages wherein each screen page has a portion of said plurality of icons displayed within said determined size of said designated area.

26. A data processing system for displaying icons on a display screen, comprising:  
means for determining a size of a designated area of a display screen for  
displaying a plurality of icons;  
means for utilizing a predetermined minimum size and a predetermined maximum  
size for an individual icon;  
means for displaying said plurality of icons within said determined size of said  
designated area, based upon said predetermined minimum size and said predetermined  
maximum size, by at least one of a) automatically scaling said icons; b) displaying a  
portion of each one of said plurality of icons; and c) creating a plurality of selectable  
displayed screen pages wherein each screen page has a portion of the plurality of icons  
displayed within said determined size of said designated area.

27. The data processing system of claim 26 wherein said predetermined minimum  
size and said predetermined maximum size are predetermined based on user input.

28. The data processing system of claim 26 wherein the data processing system is a  
hand held device.

29. An article of manufacture for use in a data processing system for scaling icons on  
a display screen, the article of manufacture comprising computer readable storage media  
including program logic embedded therein that causes control circuitry to perform the  
steps of:  
determining a size of a designated area of a display screen for displaying a  
plurality of icons;  
displaying said plurality of icons within said determined size of said designated  
area by at least one of a) automatically scaling said icons; b) displaying a portion of each  
one of said plurality of icons; and c) creating a plurality of selectable displayed screen  
pages wherein each screen page has a portion of said plurality of icons displayed within  
said determined size of said designated area.

30. An article of manufacture for use in a data processing system for scaling icons on a display screen, the article of manufacture comprising computer readable storage media including program logic embedded therein that causes control circuitry to perform the steps of:

determining a size of a designated area of a display screen for displaying a plurality of icons;

utilizing a predetermined minimum size and a predetermined maximum size for an individual icon;

displaying said plurality of icons within said determined size of said designated area, based upon said predetermined minimum size and said predetermined maximum size, by at least one of a) automatically scaling said icons; b) displaying a portion of each one of said plurality of icons; and c) creating a plurality of selectable displayed screen pages wherein each screen page has a portion of the plurality of icons displayed within said determined size of said designated area.

31. The article of manufacture claim 23 wherein said predetermined minimum size and said predetermined maximum size are predetermined based on user input.